

# Crossing Paths



WITH WILDLIFE IN WASHINGTON TOWNS AND CITIES

Spring 2002

## Keep those springtime feeders **CLEAN!**

Spring can be one of the most important times to feed birds - they need all the help they can get to make it through the rigors of nest-building, breeding, egg-incubating, and rearing young.

But if you provide feed during this increasingly warmer, wetter time of year, please keep those feeders **CLEAN!**

You can do more harm than good if dirty feeding stations end up spreading diseases through your local bird population.

There are four main diseases possible: **Salmonellosis** is a form of avian disease from the bacteria *Salmonella*. This is probably the most common disease at bird feeders in Washington. It frequently afflicts the more colonial, flocking species like pine siskins, evening grosbeaks, house finches and sometimes crossbills. The disease is spread by birds' fecal droppings and by bird-to-bird contact.

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## Director's Roundtable results: We're connecting with citizens, with room for improvement

*by Jeff Koenings, WDFW Director*

The Washington Department of Fish and Wildlife (WDFW) is doing a fairly good job of communicating with the people we serve, but there's room for improvement.

That's the bottom line from WDFW's "Director's Roundtable: Connecting With Citizens" process. The pulse-taking effort, conducted last fall in locations around the state, involved about 250 citizens and well over half of WDFW's 1,600 employees in an analysis of our communication with constituents.

The roundtables examined the effectiveness of WDFW interpersonal communications, public involvement, and information products. A variety of methods were used to gather feedback:

- Seven sessions, conducted in each region of the state, in which I met with and heard from regional citizen panels representing diverse interests
- A citizen survey conducted on our Internet website and at the public roundtable meetings
- Meetings and small-group work sessions with WDFW employees in all regions of the state and Olympia
- An employee survey

I know we heard from at least one Backyard Wildlife Sanctuary (BWS) manager because one comment noted that this newsletter is "my only connection to WDFW." I hope that we can expand such connections because with all that BWS participants do for wildlife, I consider you among our most active constituents.

The final Director's Roundtable report and our action plan for responding to the suggestions is available on our website ([www.wa.gov/wdfw](http://www.wa.gov/wdfw)). Here are some highlights of what we heard and how we plan to respond:

- WDFW's website is an effective way of retrieving information about fish and wildlife, but information also should be targeted to specific interest groups and individuals. To disseminate information more efficiently, WDFW will develop electronic mailing lists of interested constituents. On a broader level, our Information Services section will work to develop a strategic plan for improving the WDFW website.
- The need for easy-to-use maps and current activity information for WDFW lands was frequently cited in

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# Living with Washington's wildlife:

## Tree Squirrels (Part 1)

### Editor's note:

WDFW's Seattle-area urban wildlife biologist Russell Link is compiling a series of "Living With Washington's Wildlife" factsheets for distribution at regional offices that will eventually be posted on our website and part of a new book, "Living With Wildlife in the Pacific Northwest." This newsletter regularly features excerpts from that work. This edition is the first of two parts on tree squirrels; the fall 2002 edition will address what to do when a squirrel's search for food or shelter creates problems for BWS managers.

When the public is polled regarding urban and suburban wildlife, tree squirrels generally rank first as problem makers.

Residents complain about them nesting in homes and exploiting bird feeders. Interestingly, tree squirrels also almost always rank first among preferred urban/suburban wildlife species. Such is the paradox they present: We want them and we don't want them, depending on what they are doing at any given moment.

Although tree squirrels spend a considerable amount of time on the ground, they are more at home in trees, unlike the related ground squirrels. Washington is home to four species of native tree squirrels and two species of introduced tree squirrels:

The native Douglas squirrel, or chickaree (*Tamiasciurus douglasii*) is 10-14 inches in length, including its tail. Its upper parts are reddish-or brownish-gray, and its under-parts are orange to yellowish. The Douglas squirrel inhabits areas with large stands of fir, pine, cedar and other conifers in the Cascade Mountains and western parts of Washington.

The red squirrel (*Tamiasciurus hudsonicus*) is about the same size as the Douglas squirrel and lives in coniferous forests and semi-open woods in northeast Washington. It is rusty-red on the upper part and white or grayish white on its underside.

The Northern flying squirrel (*Glaucomys sabrinus*) is the smallest tree squirrel in Washington, ranging from 9-10 inches in length. Its fur is soft and silky, rich brown, sometimes dark gray above and creamy below. Its eyes are dark and large, and its tail is brown, wide, and flat. These nocturnal gliders are surprisingly common, yet seldom seen throughout their forest homes.

The Western gray squirrel (*Sciurus griseus*) is the largest native tree squirrel in Washington, ranging from 18-24 inches in length. It has gray upper parts and a creamy undercoat, and its tail is long and bushy with white edges. This species, listed as "threatened" (at risk of becoming endangered), is found in low elevation oak and conifer woods in parts of western and central Washington. (See the article on page 3 about helping find these squirrels.)

The Eastern gray squirrel (*Sciurus carolinensis*) and Eastern fox squirrel (*Sciurus niger*) were introduced into city parks, campuses, and estates in the early 1900s. They are now the most common tree squirrels in most urban areas in Washington. The upper parts of the Eastern gray squirrel are gray with a reddish wash in summer; its under-parts are whitish. It's about 20 inches long, half of which is its prominent, bushy tail. The Eastern fox squirrel is 22 inches in length, including a 9-10 inch tail. Its upper parts are usually dark grayish with a reddish cast, and the under-parts are orange to deep buff.

(The Eastern gray squirrels' and fox squirrels' fur color can vary greatly. Some individuals, even whole populations, may be almost entirely black.)

Flying squirrel



Red squirrel

### Natural History

**Nest sites:** Tree squirrels build nests in hollow trees, abandoned woodpecker cavities, and on limbs and forks of tree branches. They also nest in roofs, attics, chimneys, and nest boxes. Nests may contain leaves, twigs, shredded bark, and fine mosses and lichen. Summer nests are about 1-1/2 feet wide, spherical or cup-shaped, and located 15-50 feet above the ground. Tree squirrels don't hibernate, but will remain in their nests in cold or stormy weather.

**Reproduction:** The breeding season for tree squirrels begins in late winter. An average of four young are born naked and with eyes closed. After about a month, the young are fully furred and make short trips out of the nest. At about two months, they eat solid foods and will venture to the ground. At about four months, the mother commonly drives away the spring litter. Eastern gray and fox squirrels may then begin a second breeding cycle.

**Foods:** Tree squirrels eat seeds, nuts, acorns, fruits, flowers, fungi, lichen, tree bark, buds, insects, and occasionally birds' eggs and young birds. They store food and recover it as needed. The flying squirrel relies mostly on lichens and mosses for winter food.

**Skills:** Tree squirrels can jump six feet vertically and leap eight to 10 feet between objects. From a height of 60 feet, flying squirrels can glide 150 feet or more. They don't actually fly, but glide downward through the air using skin flaps that stretch between their front and rear legs, forming two "wings." The tail is used as a rudder to help it keep on course. Like other rodents, tree squirrels are accom-

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## How many birds did you count last winter?

If you were part of WDFW's Backyard Winter Bird Feeding survey this past winter, April 15 is your deadline for letting us know how many birds you counted.

About 1,000 volunteers count birds in their backyards across the state through the winter to help WDFW learn more about species population shifts from year to year. If you were among them, send your survey forms to "Winter Backyard Bird Survey," WDFW, 16018 Mill Creek Blvd., Mill Creek, WA 98012.

If you want to be a part of this survey next winter, write to the same address, or send e-mail to: [thomppat@dfw.wa.gov](mailto:thomppat@dfw.wa.gov).

## Explore nature in your neighborhood

Many people think nature is something they have to travel a long way from home to experience. But as BWS managers know, nature is right in our own backyards.

"Explore nature in your neighborhood" is the theme of the 64<sup>th</sup> annual commemoration of National Wildlife Week, April 22-28. Sponsored by the National Wildlife Federation, the week is most often observed by educators and youth leaders who use the free activity kits.

If you're a parent or teacher or someone who wants to share what you've done in your backyard with your community, see <http://www.nwf.org/nationalwildlife/week/> for more information.

### You might be a backyard wildlifer if ...

... you clean your birdbath more frequently than your bathtub.

... you buy six kinds of birdseed but only one kind of breakfast cereal.

... you've built more square feet of nest boxes than square feet in your back deck.

## Director's Roundtable results *(continued on page 1)*

the Roundtable sessions. WDFW's Wildlife Program, which manages Department lands, will set aside the necessary funding to begin producing maps this year.

- WDFW staff is spread thin and current financial conditions do not allow for expansion in the foreseeable future. Individual volunteers and more partnerships with non-governmental organizations can help the Department meet fish and wildlife needs. To this end, I recently reorganized our Outreach and Education staff to focus on building partnerships through the "Go Play Outside" initiative, which promotes wildlife viewing, fishing, and hunting. I believe people can better understand and identify with fish and wildlife needs through those recreational pursuits, and groups and individuals outside the agency can help us in that endeavor. In addition, our data and survey managers are developing standards to help field staff work more consistently with volunteer partners in fish and wildlife data collection.
- Finding the right WDFW staff member to answer questions can be difficult. To speed the search, a staff contact directory will be developed for users of our website.

- A public involvement calendar posted on our website and available in printed form at WDFW offices and license vendors would greatly assist citizens who wish to play a role in fish and wildlife issues and activities. Our Public Affairs section is assembling a comprehensive calendar of WDFW public involvement opportunities.
- WDFW regional operations and interpersonal relationships between staff and citizens were repeatedly cited as essential to good communication and customer service. To continue the dialogue with interested citizens and to identify specific ways to maintain and improve service, WDFW regional directors will conduct local roundtables later this year. Those interested in participating can find a list of regional directors at [www.wa.gov/wdfw/reg/regions.htm](http://www.wa.gov/wdfw/reg/regions.htm).

As our Roundtable efforts continue on the regional level, I expect to hear other valuable suggestions on ways WDFW can better work with constituents. I encourage BWS participants, like others with a keen interest in Washington's fish and wildlife, to become a part of this process.

## Help find threatened Western gray squirrels

If you live in south-central Washington's Klickitat County you might want to help the Washington Department of Fish and Wildlife (WDFW) find Western gray squirrels.

The Western gray squirrel (*Sciurus griseus*) is listed by the state as "threatened" and as a "species of concern" nationally because of their relatively low populations. The decline of this once common native species appears to be due to habitat changes, fluctuating food supplies, and occasional outbreaks of disease.

WDFW scientists are trying to learn more about the Western gray squirrel in one of its last strongholds in the state: the oak-conifer woodlands of Klickitat County. A five-year research study on their population dynamics and the effects of timber harvest on the species got underway last year. Study cooperators include Boise Cascade Corporation, The Campbell Group, the National Fish and Wildlife Foundation, and the U.S. Fish and Wildlife Service.

Volunteers are needed to assist with semi-annual trapping efforts to estimate squirrel numbers on study plots. If you're interested in helping, contact WDFW Research Scientist Matt VanderHaegen at 360-902-2516 or [vandemwv@dfw.wa.gov](mailto:vandemwv@dfw.wa.gov).





## Keep those springtime feeders **CLEAN!** *(continued from page 1)*

The first indication of salmonellosis is often a very “tame” bird on your feeder or around your house. The afflicted birds become very lethargic and are easy to approach and even pick up. There is very little you can do to treat the birds at this point.

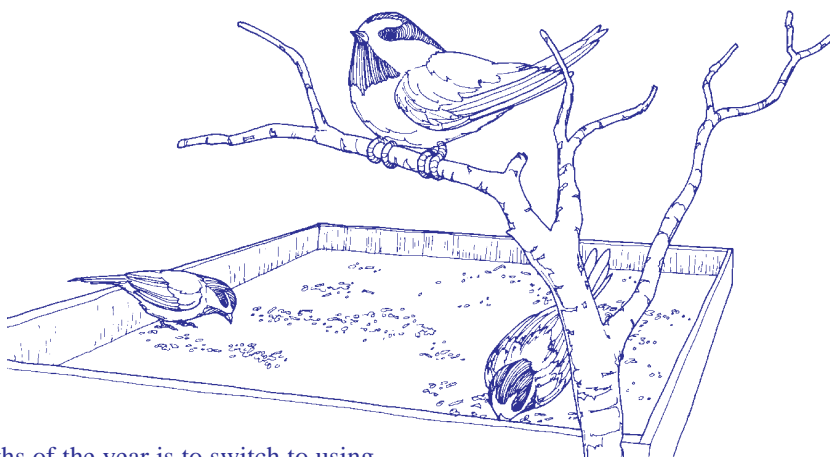
**Avian Pox** is a viral disease that causes wartlike growths on birds’ faces, legs, wings and feet. The virus is spread by direct contact with infected birds, ingestion of food and water contaminated by sick birds, or contact with contaminated surfaces such as at feeders, birdbaths, and perches. Insects, especially mosquitoes, also carry the disease from one bird to another.

**Trichomoniasis** is a disease caused by small parasites that can affect a wide variety of animals, including humans. The mourning dove and band-tailed pigeon seem to be particularly susceptible. The disease causes sores in their mouths and throats, and results in death from starvation or dehydration.

**Aspergillosis** is a disease caused by a fungal mold that grows on damp feed or soil in or around the feeder. Birds inhale the fungal spores and the disease spreads throughout their lungs and air sacs, causing bronchitis and pneumonia.

If you see evidence of any of these diseases at your feeders, the most important thing you can and should do immediately is remove your feeders and/or clean them with a bactericide, like a ten percent chlorine or bleach solution. If you leave the feeders up, clean them weekly.

One of the better ways to address the potential disease problem during the wet



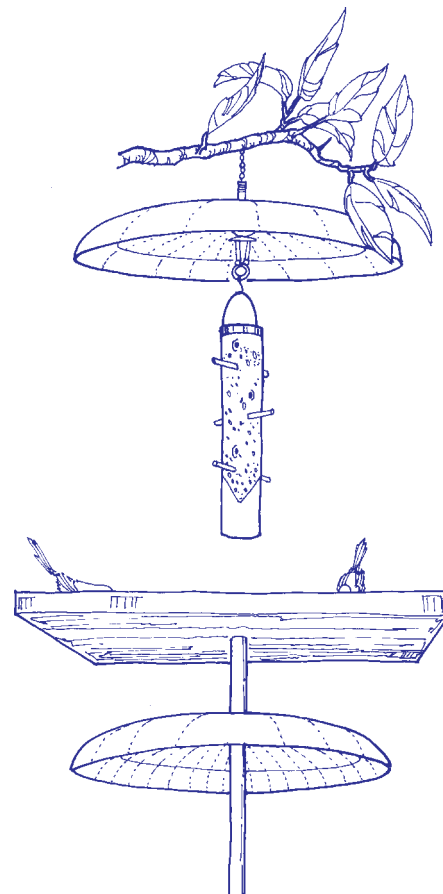
months of the year is to switch to using only tube feeders rather than the house-like or platform feeders. Feeders that have more flat surfaces collect more droppings, fungus, and other dirt that may spread disease.

Other ways to minimize chances of a disease outbreak at your feeders are:

- Give birds space - Spread more feeders over a greater space. Crowding is a key factor in spreading disease because birds have more direct contact, jostle each other, and are stressed and thus more vulnerable. Use smaller feeders that allow only a couple of birds to feed at a time.
- Clean up wastes - Regularly rake the area underneath feeders to remove droppings and old, moldy seed. Mount feeders over a surface that can be swept easily. Move feeders around periodically to keep droppings from collecting.
- Keep feeders clean and dry: Clean and disinfect feeders regularly, using one part chlorine or bleach to ten parts tepid water. Soak feeders and all parts for at least 10 minutes. Scrub, thoroughly rinse, and dry completely before re-using. Repeat every couple of weeks or more often if you notice sick birds. Avoid using wood feeders because they're difficult to keep clean. Make sure feeders allow rainwater to drain easily.
- Use good feed - If any feed smells or looks musty or moldy, don't use it. Disinfect storage containers and scoops used with spoiled feed before replacing with fresh, clean, dry feed.

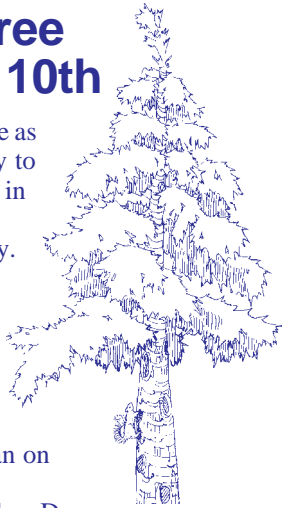
Also, avoid seed mixes, especially those with mostly milo or millet; most birds will scatter mixes for more preferred seed and the waste on the ground can become wet and moldy.

Remember that these diseases aren't just caused by humans feeding birds. Disease is part of a bird's natural world. But when you invite birds to dinner at your home, you want to be sure to avoid or minimize the disease potential.



## Plant a tree on April 10th

April 10 may be as good a day as any to plant another tree in your Backyard Wildlife Sanctuary. But if you like the idea that thousands of others will be doing so that same day across the state, then plan on it and be a part of Washington's Arbor Day.



This year will be the 120<sup>th</sup> annual celebration of National Arbor Day, which is most commonly observed on the last Friday of April. Like other states, Washington celebrates Arbor Day to coincide with optimum tree-planting weather in most parts of the state.

Arbor Day began in "tree-challenged" Nebraska, but it's long been celebrated everywhere, especially with increased understanding of how important trees are to everything.

Trees help supply the air we breathe, provide the soil with nutrients, and prevent erosion and flooding. Humans and animals depend on trees for survival, but we've lost almost half of the world's original forest cover. About four billion trees are cut down every year, resulting in about one-fourth of all carbon dioxide emissions that contribute to global warming.

Whether you plant on the 10<sup>th</sup> or the 26<sup>th</sup> or some other day this spring, choose a species of tree that provides food or shelter for wildlife.

Washington's state tree, the Western hemlock (*Tsuga heterophylla*), is a good choice because it offers lots of benefits to wildlife and can be planted statewide. (See separate article on this page.)

Other trees worth planting in your sanctuary for the benefit of wildlife include Garry (white) oak, Douglas, vine, or big-leaf maple, mountain ash, Pacific crabapple, Pacific dogwood, quaking aspen, and a variety of native alders, firs, hawthorns, pines, cherries, and willows.

For more information about tree planting and Arbor Day, see [www.arborday.org](http://www.arborday.org).

## Washington's state tree provides for wildlife

Washington's state tree was long ago selected for its timber value, but it's also a known provider of food and shelter for a diversity of wildlife.

The most important tree in the Pacific Northwest timber industry is the Douglas-fir (*Pseudotsuga menziesii*), which became the state tree of Oregon.

In 1946, the *Portland Oregonian* teased Washington for not having a state tree, and suggested Washington adopt the **Western hemlock** (*Tsuga heterophylla*).

Washington newspapers initially selected the popular Western red cedar instead. But State Representative George Adams of Mason County pleaded the Western hemlock's case. He said it would become "the backbone of this state's forest industry." Adams' bill to designate the Western hemlock as Washington's state tree was signed into law in 1947.

The Western hemlock is a large, fast-growing tree with down-sweeping branches, delicate feathery foliage, and many small cones. Although found in forested wetlands, it also grows in drier soil and is often found with red-cedar and Douglas-fir.

The small, numerous seed cones of Western hemlock are greenish to reddish-purple and turn brown with age. The seeds mature in September through January and are eaten by juncos, siskins, chickadees, grouse, finches, crossbills, chipmunks, and squirrels. Porcupines and mountain beavers eat the bark and twigs. Deer and elk browse the twigs and needles. Water beavers cut the wood for building material, but they generally don't eat hemlock. Cavity-nesting birds and tree squirrels nest and roost in cavities created

in mature trees.

Western hemlock creates an excellent screen where there is room for it to attain its natural form and height, which approaches 150 feet. Western hemlock does poorly as seedlings in full sun and is usually found growing in the shade of other trees. Although it is found naturally and can grow in all parts of the state, it grows best in woodland conditions west of the Cascade Mountains; in dry urban areas it is often short-lived.

The wood has an even grain and resists scraping, which makes it easy to machine. It is widely used for doors, windows, parts of staircases, ladders and other architectural millwork items.

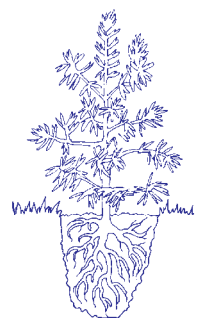
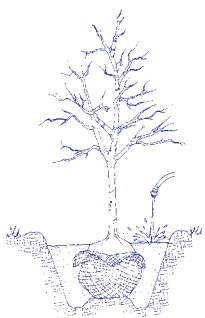
Native coastal people carved hemlock wood, which is fairly easily worked, into spoons, combs, roasting spits, and other implements. Sometimes hemlock roots were spliced onto bull kelp fishing lines to strengthen them.

The scent of the crushed needles of Western hemlock reminded early settlers of the European weed with a similar smell. Western hemlock is not related to poison hemlock, the weed which killed Socrates.

Our other native hemlock, the Mountain hemlock (*Tsuga mertensiana*) is a better choice for planting in small landscapes, and it, too, provides for wildlife. It is particularly attractive when planted in groups of three or five with differing heights. A slow-grower with dense, gray-green, short needles, it takes many years to reach twenty-five feet. To help prevent the destruction of their native habitat, don't buy Mountain hemlock plants that have been dug from the wild.

### Tree planting tip

Dig a deep enough hole so that roots can be spread out and reach straight down into loosened soil. To avoid planting too deep, keep the crown near the surface.



## County open space protection based on “gap analysis”

Every county in the state is required under the Washington Growth Management Act to have a plan to preserve undeveloped open space.

For WDFW, that’s an opportunity to identify areas of importance to fish and wildlife and of greatest biological diversity or “biodiversity.”

The challenge of mapping biologically defensible open space is greatest in urban areas, where little ecological data is available.

WDFW biologists Michelle Tirhi and Howard Ferguson (with help from many public and private partners) took on that challenge in two of the state’s most urban counties - Pierce and Spokane - by looking for unprotected areas of biodiversity through a planning method called “gap analysis.”

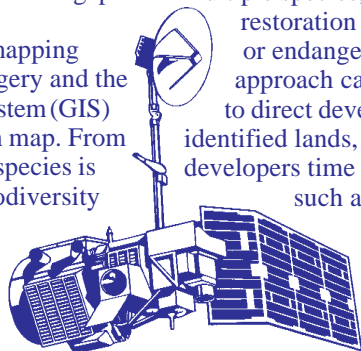
“Gap analysis” uses the mapping technologies of satellite imagery and the Geographical Information System (GIS) to create a current vegetation map. From that, distribution of wildlife species is derived and areas of high biodiversity are identified.

The map is refined or “ground truthed” with any and all known plant community and wildlife

occurrences from WDFW’s Priority Habitats and Species and Streamnet databases, the Department of Natural Resources’ Heritage and Sensitive Plant Species databases, county natural resource inventories, and local expert biological opinion. These core areas are connected by corridors of habitat, often by waterways.

Once these core areas and corridors are mapped, they are overlaid with maps of land ownership and management. The unprotected areas of greatest biodiversity, or “gaps” in protection, are then identified and can be the basis of an open space plan.

With this effort, WDFW is putting the emphasis on proactive conservation of multiple species, rather than on reactive restoration of individual threatened or endangered species. This approach can guide county planners to direct development away from identified lands, and can save land developers time and money by avoiding such areas and potential legal challenges. It can also guide private and public land conservation purchases or easements.



The biodiversity map developed for Pierce County covers about 29 percent of the county, with eight percent already protected from development by ownership or management. That means about 21 percent of Pierce County needs open space protection to sustain the county’s biodiversity.

This map has been adopted as part of the Pierce County Master Comprehensive Plan and Critical Areas Ordinance. That designation gives the county authority to require low impact development standards in bio-rich lands, provide clustered building incentives, and restrict subdivision.

The map developed for Spokane County covers about 37 percent of the county, with about five percent already protected, leaving about 32 percent in need of open space protection. The map is part of the Spokane County Master Comprehensive Plan to divert development away from those areas when feasible and to offer incentives for low impact development.

Both counties are using the tax-based “Conservation Futures” program funds for purchase of land or conservation easements in these identified areas.

## Living with Washington's wildlife: Tree Squirrels *(continued from page 2)*

plished gnawers, using their sharp, ever-growing front teeth to strip bark and chew through wood, nut shells, heavy plastic, and utility lines. Their hind legs are double jointed to help them run up and down trees quickly. Their front claws are extremely sharp and help in gripping while climbing and traversing.

**Home range:** A tree squirrel’s home range is one to 10 acres. In urban areas where food and shelter are plentiful, it is closer to half an acre.

**Predators:** Tree squirrel predators include large hawks and owls, coyotes, and bobcats all of which normally catch squirrels on the ground. In trees, squirrels are relatively safe, except for an occasional owl. Vehicles, disease, and domestic dogs and cats kill tree squirrels in urban areas. Past the first year, most tree squirrels live three to five years.

### Viewing Opportunities

Except for the flying squirrel, tree squirrels are most active at dawn and dusk. But sharp eyes aided by a good pair of binoculars can spot them moving among the treetops any hour of the day. On hot summer days, tree squirrels are less active and remain motionless on branches to enjoy whatever breeze is available. The introduced Eastern gray and Eastern fox squirrels are readily observable in city parks and suburban yards. In winter, look for their nests in the tops of deciduous trees. In the fall when tree squirrels are actively harvesting and storing food for winter, look for “cuttings” under their food trees.

### Attracting Tree Squirrels

Squirrels can be attracted to your property by providing adequate natural

food sources and living spaces. Suggestions include:

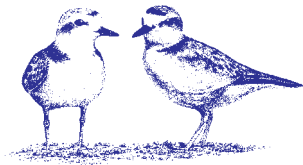
- Keep as much property as you can in a natural condition.
- Include native plants that provide seeds (maples), nuts (filberts), acorns (oaks), cones (conifers), and fruits (Oregon-grape, salal, cherry) at different times of the year. These will be eaten while on the plants and after they have fallen.
- Leave prunings on the ground for squirrels to gnaw.
- Leave dead or dying trees (snags) alone when possible. These provide homes and food-storage sites.
- Install nest boxes in suitable locations.
- Build a pond or ground-level birdbath for squirrels to drink from.
- Keep domestic dogs and cats indoors or fenced.



## Backyard shorebirds?

Not many BWS managers host plovers or sandpipers or other shorebirds in their backyards. (Waterfront property is hard to come by!)

But a spot in our collective state “backyard” is used by thousands of shorebirds every spring on their way north to breeding grounds. Bowerman Basin at Grays Harbor National Wildlife Refuge near Hoquiam in Grays Harbor County on the Olympic Peninsula is a feeding and resting stopover for migrants in late April each year.



The Grays Harbor Audubon Society is teaming up with the refuge and other community sponsors for the seventh annual Grays Harbor Shorebird Festival, April 26-28, featuring field trips and other activities to help you enjoy this spectacle.

Call 360-495-3289 or 1-800-321-1924, or see <http://www.ghas.org/bowerm.html> for more information.

## Spokane County Bird Fair

June 1-2

You can learn gardening tips from Spokane County Extension and Master Gardener experts, tour a “naturalized” landscape, and buy plants and birds supplies at the third annual Backyard Bird and Plant Fair Sat., June 1, and Sun., June 2, at Firwood Nursery, 8403 W. Burroughs Rd., just south of Deer Park in northern Spokane County.

This popular event runs 10 a.m. to 4 p.m. each day, and of course features WDFW’s Backyard Wildlife Sanctuary program.



## What’s your “footprint” on the earth?

April 22 marks the 32<sup>nd</sup> celebration of Earth Day, a good time to reflect on how your BWS efforts are impacting the earth.

The theme of this year’s international Earth Day campaign is “Protect Our Home,” with an emphasis on measuring the “ecological footprint” each of us leaves on the planet.

You can calculate the impact of your own “footprint,” at least in terms of your daily choices of food, transportation, energy uses, and other parts of your lifestyle, at [www.earthday.org](http://www.earthday.org).

Unfortunately, the calculation doesn’t include what you do with your own little piece of the earth, in terms of plants and wildlife and stewardship in general. But we’d like to think it offsets a fraction of what each of us takes out of the world.



## Celebrating special places for birds

Your own backyard is probably a pretty special place for birds.

So you might just celebrate the 9<sup>th</sup> annual International Migratory Bird Day on May 11 right at home. After all, the theme of the observation this year is “Celebrating Special Places for Birds.”

But some locations across Washington have actually been designated, by scientific criteria, as special places. And it’s those that are especially being celebrated on May 11.

They’re actually called “Important Bird Areas” (IBAs), part of a recent worldwide effort by the American Bird Conservancy, National Audubon Society, other conservation groups, and government agencies to identify and help protect key places with significant bird populations.

Washington Audubon and WDFW teamed up a few years ago, with a state cooperative project grant, to begin an inventory of our state’s IBAs.

As a vital link in the Pacific Flyway, Washington provides habitat for more than 350 species of birds. Many of our migratory birds depend on small staging areas during their long journeys, and those sites make up almost half of the total 53 IBAs identified to date.

The criteria used for this inventory included: use by endangered or threatened species; use by migratory species on the National “Partners in Flight” watch list; species assemblages associated with a representative, rare, or threatened natural community type; importance for long-term avian research or monitoring; and where birds regularly concentrate in significant numbers.

Some of Washington’s IBAs are not necessarily of statewide significance, but might be the last refuges for birds in counties or communities with intense land use or development.

The lack of IBA designation for a particular place does NOT imply that it is unimportant for birds. It may merely mean that a site-based approach to conservation of those species is less effective than another method.

Most Washington counties have at least one IBA, from Adams County’s Columbia National Wildlife Refuge to Yakima County’s Tieton River Corridor. The most IBAs are on the coast in Grays Harbor, Island, and Pacific counties, reflecting those critical staging areas for long-journeyed migrants.

You can find out more about our IBAs at [www.wa.aububon.org](http://www.wa.aububon.org) and more about International Migratory Bird Day at <http://www.birdday.org>.



**Washington Department  
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**Moving? Re-register  
with BWS**

If you've moved from the property you enrolled as a Backyard Wildlife Sanctuary, you need to register your new property in the program, rather than simply make a change of address to receive this newsletter.

We want to keep our records straight on what properties are actually in the program, so you'll need to fill out a BWS enrollment application form (available by calling, writing or e-mailing WDFW's Mill Creek or Spokane offices), and submit it with the \$5 fee to cover the cost of your new sign, certificate, and ongoing subscription to this twice-yearly newsletter.

If you've moved to a property that is currently registered as a Backyard Wildlife Sanctuary, and you want to continue with the program, please re-register the same way.

**Tell Your Friends:**

***Personalized Plates Help Wildlife***

The Backyard Wildlife Sanctuary program, along with other non-game functions of the Washington Department of Fish and Wildlife (WDFW), is funded by the sale of Washington state personalized motor vehicle license plates. These distinctive plates — in your choice of unclaimed word(s) up to seven letters — cost an extra \$46 for the first year and an extra \$30 for each subsequent year. You can pick up an application form at any state licensing or WDFW office, or by contacting the Department of Licensing at P.O. Box 9042, Olympia, WA 98507, 360-902-3770 (telephone menu option #5).





# Good old nest box still draws 'em

Sometimes you just can't improve on a good design. That's the case for the good old basic songbird nest box design, presented here once again for those who have either lost that part of their original BWS packet, or just need a little inspiration.

## Materials

1 - 1" x 6" x 6' rough board (cedar is best)  
18 - 1-1/4" outdoor wood screws or #7 galvanized nails. Wire to keep side door closed

## Board cuts

Make adjustments based on species dimensions.

### Lumber Detail

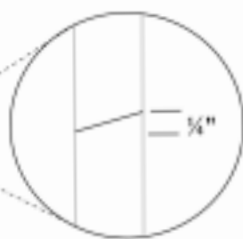


### Exact Round Entry Hole Diameters

Species	Entry hole diameter	Floor	Depth	Entry above floor
Chickadee	1 to 1-1/8"*	4x4"	9"	7"
House wren	1-1/8" *	4x4"	6-8"	4-6"
Violet-green swallow	1-1/4" *	5x5"	6-8"	4-6"
Tree swallow	1-1/4"	5x5"	6-8"	4-6"
Nuthatch	1-1/4" *	4x4"	9"	7"
Bluebird	1-1/2"	5x5"	8-12"	6-10"

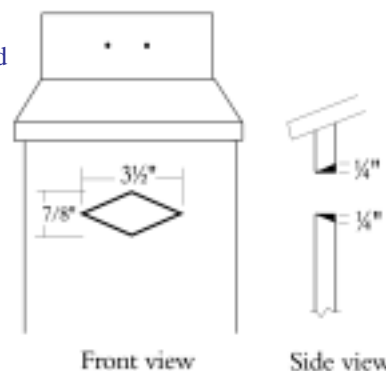
\* These species can also use the Optional entry hole.

### Detail of Two Slant Cuts



## Optional entry hole

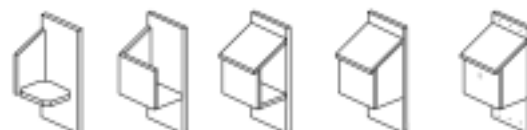
This diamond-shaped entry hole is designed to prevent access by house sparrows. To work properly, it is extremely important that the final entry hold be made to the dimensions shown. To accommodate violet-green swallows, file down the area inside of the entry hold, as show in the side view.



## Assembly Sequence

Pivot screw works as a hinge. To allow the side to open easily, the pivot screw on the opposite side needs to be at the same level as the one in front.

Two screws and wire keep side door closed.



Holes for attaching to a tree or post with nails, lag bolts, or wire.

## Placement height

Most of these songbird species prefer nest boxes placed six to 15 feet high. The bluebird is the exception, preferring four to 10 feet high boxes